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ABSTRACT

At McCook Community College (MCC) in Nebraska, a teachers' guide was developed to introduce the goals and processes of outcomes-based learning (also termed competency-based education and mastery learning) to the college faculty. Several procedures were used: a review of the literature, an analysis of two previously existing manuals, and a review of the resulting product by three professionals. After explaining the processes used to develop, review, and revise the guide, this practicum report presents the guide itself. Entitled "An Introduction to Outcomes-Based Learning at McCook Community College," the 26-page guide focuses on the purposes of the manual, instructor competencies to be developed, major principles of outcomes-based learning, a rationale for outcomes-based education, a model of the process and samples of component parts (i.e., rationale, objectives, pre-testing, learning activities, post-testing, and revision of the learning process if students do not demonstrate mastery), and an evaluation instrument for the guide. (GFW)

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THE DEVELOPMENT OF A GUIDE ON OUTCOMES-BASED LEARNING FOR MCCOOK COMMUNITY COLLEGE

Curriculum and Program Planning Seminar

by

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A Practicum Report presented to Nova University in partial fulfillment of the requirements for the degree of Doctor of Education

Nova University

November, 1990

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by

Ford M. Craig

November, 1990

The purpose of this study was to develop a guide to introduce MCC Faculty members to the framework of outcomes-based learning. The problem which prompted this study was that MCC's Dean of Instruction needed a guide to introduce the faculty to outcomes-learning systems. However, the Dean, being new to his position, did not have the time to develop a guide to accomplish this goal, hence the impetus for this study.

Several procedures were used to facilitate the development of the guide. In addition to an extended review of literature, two manuals similar to the one that was composed were secured from professionals. The aforementioned materials provided the basic framework and content for the MCC guide. The guide was reviewed by three professionals and their suggestions were incorporated.

The guide created as a result of this study contained four sections: 1) major principles and sources of outcomes-based education; 2) outcomes-based education: a

rationale; 3) outcomes-based educational systems: a model of the process and samples of component parts; and 4) summary comments and evaluation.

Conclusions drawn in the process of completing the study included the following: 1) a clarification of terminology was needed early in the guide; 2) the guide needed to have four major sections; and 3) section three of the guide required careful attention given to demonstrating how theory was carried into practice. Recommendations included use of the guide for faculty development purposes with special emphasis given to each of the four sections of the guide. Another recommendation was for the guide to be evaluated and revised accordingly.

TABLE OF CONTENTS

	Page
LIST OF FIGURES	vi
Chapter	
1. INTRODUCTION	1
Background and Significance	1
Research Questions	2
2. REVIEW OF THE LITERATURE	3
Principles of Outcomes-Based Learning	3
A Rationale for Outcomes Learning Systems	6
Systems and Models of Outcomes-Based Learning	9
Institutions Using Outcomes-Based Systems	11
3. METHODOLOGY AND PROCEDURES	18
Definitions of Terms	19
Assumptions	19
Limitations	20
4. RESULTS	21
5. DISCUSSION, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS	25
Discussion	25
Conclusions	28
Implications	29
Recommendations for the Improvement of Practice	31

TABLE OF CONTENTS (Cont.)

Page

REFERENCES 33

APPENDICES 35

A. Guide 35

B. Validation Letters 62

LIST OF FIGURES

Figure		Page
1.	Herrscher's Model of a Competency-Based Educational System	9

Chapter 1

INTRODUCTION

Background and Significance

McCook Community College (MCC) is a small (450 full time students) publicly supported Nebraska two-year college. At MCC, course delivery has followed fairly traditional patterns including lecture, discussion, demonstration and variations of these three methods. What had been done to individualize instruction had largely been accomplished by the Director and staff members of the Individualized Learning Center in the basement of the campus library building. Some faculty members had heard about outcomes-based learning or competency-based learning, but generally not much was known or practiced in any formal way on campus.

It appeared that only the new Dean of Instruction at MCC had a working knowledge of outcomes-based learning concepts and understood the value of the approach. A problem arose in that the Dean wanted instructional staff to become familiar with the conceptual framework of outcomes or competency-based learning, but being new to his position, did not have the time to develop a guide that would accomplish this goal.

The purpose of this study, therefore, was to develop a guide to introduce MCC faculty members to the framework of

outcomes-based learning. A careful literature review was conducted to determine the kinds of content to be included in the guide. The literature review also provided the conceptual framework necessary to create the guide. Books were provided by the MCC Dean of Instruction, and books from the Nova library were reviewed. Also, an ERIC search for relevant periodical articles was completed.

This practicum was related to topics examined in the Curriculum and Program Planning Seminar. Bloom and his concepts of outcomes-based learning, including the related types of evaluation, formed a substantial part of section four of the Nova Guide for Curriculum and Program Planning (Herrscher et al., 1986). Also, much seminar time was devoted to discussion and analysis of outcomes-based learning systems.

Research Question

There was one research question central to this study. The question was as follows: "What are the kinds of content that should be included in a handbook designed to introduce faculty to competency-based (outcomes) educational processes?"

Chapter 2

REVIEW OF THE LITERATURE

A literature review was conducted to provide a conceptual framework for the guide and to determine types of content to be included within the framework. "Outcomes-based learning," "educational outcomes," and "competency-based learning" were descriptors used in an ERIC search. Relevant books were provided by the MCC Dean of Instruction, and samples of guides were secured from experts knowledgeable in the field of outcomes learning. This literature, thus examined, was subdivided into four conceptual categories. The first category was that portion of the literature which established guiding principles. A second area involved various kinds of rationale for outcomes-based learning systems. This category was followed by a third area which included descriptions of systems and models. A final area reviewed involved competency-based learning systems as practiced in several institutions of higher education.

Principles of Outcomes-Based Learning

The principles of outcomes-learning, sometimes referred to as "mastery" or "competency-based learning," were largely established and organized by Bloom, Hastings, and Madaus. Their work on the subject appears in two separate texts, one published in 1971 and the other in

1981. In the more recent book, Bloom and his associates (1981:2) assert that "education throughout the world for many centuries emphasized a selective function." By selective function, Bloom means that too often education has been used to select those who move ahead and those who are held back. Instead, Bloom (1981:2) offers a different view: "Quite in contrast to the notion of using schools for selection purposes is the view that education has as its primary function the development of the individual." Education viewed in this light, Bloom would argue, is a process which changes the learners, but which should not restrict or limit them. It is along these lines, then, that these same authors (1981:53) maintain

> if the students are normally distributed with regard to aptitude, but the kind and quality of instruction and the amount of time available for learning are made appropriate to the characteristics and needs of each student, the majority of students may be expected to achieve mastery of the subject.

To summarize, Bloom and his associates introduce three principles which are significant foundations of outcomes learning: 1) educational processes should not be designed to restrict or limit students; 2) the type and quality of instruction should be appropriate to meet the needs of the learner; and 3) the amount of time available for learning should vary according to the needs of the learner.

In addition to these principles, at least four other foundational concepts required additional comment: the role of objectives, the role of formative evaluation, the

use of corrective measures, and the applications of summative evaluation. Bloom and associates (1971:9) "believe that at the beginning of the year the teacher should make explicit to himself as well as to the students the changes that are expected to take place in them as a result of the course." However, the authors (1971: 10-11) do not limit their comments to just the teacher in the classroom: "A curriculum - whether it is a textbook, a complete set of materials and activities or a whole school program must have some ends in view." Bloom and associates (1971:14) comment that the "ends" or "outcomes" are statements of "the ways in which students would be able to think, act, or feel about the subject matter."

It follows then, (Bloom, 1981:14) that formative evaluation and corrective measures are essential for a student to progress toward the desired end or outcomes: "Thus, we are suggesting that the proper use of formative evaluation - evaluation during the formation of learning - can do much to ensure that the outcomes of instruction are attained by the largest proportion of the learners." Along with formative evaluation - really a series of check points - Bloom and colleagues (1981:62) advise the use of recycling as needed. Recycling involves the use of corrective measures which can be recommended to the student to alleviate learning difficulties encountered along the way. At the conclusion of the learning cycle, Bloom

(1981:62) suggests that a final, summative evaluation may take place.

In summary, the major principles, in review, included the following:

1. Educational processes ought not to restrict or limit students.
2. The kind and quality of instruction was to be appropriate to the needs of the learner.
3. The amount of time available for learning was to vary according to needs of the learner.
4. The instructor needed to make explicit his or her goals at the beginning of the instructional process. Goals were to be clear to both instructor and student.
5. The use of formative evaluation was strongly advocated.
6. When needed, recycling or corrective measures were to be employed with the student.
7. When appropriate, a summative (final) evaluation could be given.

A Rationale for Outcomes Learning Systems

A second area, somewhat related to the first, involved the kinds of rationale given in support of outcomes-based learning systems. At least three categories of rationale were derived from the literature review. The first of these included some general reasons why outcomes-based learning systems have worked and are working. Singer

(1986) carefully subdivides this first category of rationale. She (1986:4) suggests one strength of this kind of system is having the learning objectives "measurable and specified up front, with measurement criteria fully explained." Singer (1986:6) quickly adds to the first strength three others: 1) instruction is individualized and better tailored to meet student needs; 2) tests are criterion referenced rather than norm referenced; and 3) each learner works at his or her own pace. Since instruction is individualized, Singer (1986:7) asserts: "Students who walk in the door do not have to wait until the beginning of the next class cycle," another favorable point. In addition to these supportive reasons, Singer (1986:8-9) concludes with two others: 1) learning activities can often be assigned to "complement individual student's learning styles," and 2) competency-based programs "help the students develop skills for lifelong learning." In all, Singer provides a total of seven reasons supportive of outcomes-based learning systems.

A second fairly recent development, the emphasis on assessing institutional outcomes, provided another area of support (rationale) for outcomes-based learning approaches. In a recent article, MacDougall and Friedlander (1990:4) note the emphasis being placed on accountability and outcomes:

> In a growing number of states, community colleges are required to develop plans to assess student achievement in such areas as basic skills and

> remediation, general education, acquisition of knowledge in the major field, personal development, job placement, and transfer to four year colleges and universities. In addition colleges are being asked to describe how the results of these assessments are being used to improve their effectiveness in promoting student achievement of desired outcomes.

Of course, the notion of assessing institutional outcomes can be viewed as the whole of which outcomes-based learning is a significant part. That is, institutional outcomes properly assessed can include examination of such functions as support services, administrative support, and educational programs. Therefore, if competency-based or outcomes-based learning systems are already in place, at least one portion of institutional outcomes, educational programs, should be fairly easy to document.

A third piece of rationale supportive of outcomes-based learning systems came from some recent studies dealing with how learning processes can best be enhanced. It should be noted that the research findings are supported through statistical analysis. Gagne and associates (1988:284) cite the findings of a recent study:

> As compared with conventional instruction in groups of 30 students per teacher, the use of mastery learning procedures resulted in improvements in achievement amounting to a rise from the 50th percentile to the 84th percentile. (This is an increase of one standard deviation, or 1 sigma, as Bloom describes it). When tutoring was employed as a method, the increase in achievement was from the 50th to the 98th percentile, or 2 sigma.

Gagne (1988:284) mentions that this information comes, not from one study, but from a series of studies conducted by Bloom in 1984. The results determined were indeed very

supportive of mastery or outcomes-based learning and tutorial methods.

Systems and Models of Outcomes-based Learning

A review of the literature on outcomes-based learning systems revealed a third major area of emphasis: systems and models. Bloom (1971:14) creates what he terms a "model" having three major stages with each stage containing several components: 1) analysis of learners, instruction, and learning outcomes; 2) instructional decisions, including topics such as, the state of the learner, subject matter to be learned, structure and organization of each learning task, and feedback on learner's progress; and 3) evaluation, including initial, formative and summative.

Herrscher (1970:3) provides a systems model (See Figure 1) which contains many competency-based features.

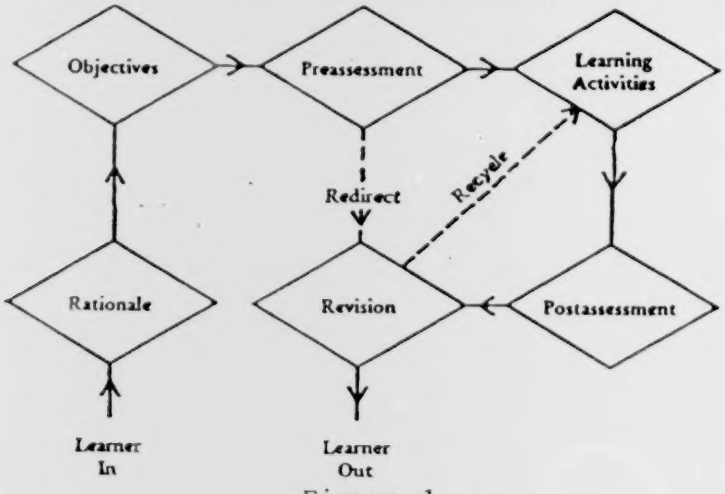

Figure 1

Herrscher's Model of a Competency-Based Educational System

A close examination of this model reveals features commonly found in competency-based learning systems such as objectives, pre-assessment, learning activities, post-assessment, revision, and the concept of recycling.

In later work, Herrscher (1984b:1) defines competency-based education as a educational framework or "broad structure within which curricular and instructional decisions are made." His framework (1984b:1) is as follows:

1. Educational Framework
2. Systematic
3. Student Attainment
4. Learning Outcomes (Competencies)
   - 4.1 Hierarchy
   - 4.2 Publicly Stated
   - 4.3 Validated
   - 4.4 Intellectual, Attitudinal, and/or Motor
5. Instructional Process
   - 5.1 Facilitate
   - 5.2 Measure
   - 5.3 Certify

In summary remarks about this framework, Herrscher (1984b:1) comments that the system "focuses on student learning rather than on the activities of the instructor." In sub-section four, the need for a hierarchy of competencies is indicated beginning with stated outcomes at the role and mission level, at the program level, the course level, and finally at the unit or lesson level (Herrscher, 1984b:1). Also, the outcomes, which involve intellectual, attitudinal, and/or motor skills, are to be publicly stated (to appropriate audiences) and validated. Herrscher (1984b:2) indicates that validation can be

accomplished by advisory committees and by faculty who serve as subject matter experts.

Regarding section five of his system, Herrscher (1984b:2) indicates that "all strategies employed which assist students in attaining the stated competencies are appropriate facilitators of learning within the CBE framework." Testing, according to Herrscher, (1984b:2) is to be criterion referenced which "involves comparing student performance with a pre-set standard. This construct is basic to competency-based education." Finally, "formal acknowledgement of student attainment of competencies via certification is the capstone of the CBE framework" (Herrscher, 1984b:2).

Institutions Using Outcomes-Based Systems

A final area appearing in the literature concerned institutions which had competency-based systems in operation. It should be noted that in some institutions the outcomes-based learning practices were system wide, but in others, the practices were limited to certain programs or courses. Also, the systems described in remainder of the literature review were in operation as of the publication date given for the article or manual being cited.

Eisele (1978) describes a competency-based program established at the Community College of Vermont (CCV). Of the different institutions using the competency-based

approach, CCV seemed to have one of the most open or flexible applications:

> The college offers a degree program in which students develop individualized study plans addressing ten areas of competence. Each student works with a trained counselor/instructor and other students to draw up a "contract" in which goals are set and competence identified appropriate to his or her own area of interest (Eisele, 1978:1).

Eisele (1978:3) indicates several major steps central to program operation: 1) the capacity to evaluate student experience and grant credit for relevant prior experiences; 2) the identification of skills and knowledge which must be learned; 3) the provision of curricular offerings capable of being delivered in a variety of ways; and 4) the necessity of writing evaluations (by both student and instructor) regarding competencies gained. With regard to this fourth step, Eisele (1978:3) says, "This system certifies that a student, on completion of a course or program, has specific abilities in an area described in the course description." As noted earlier in Herrscher's (1984) writing, this final stage of certification is the "capstone" of competency-based education.

In North Carolina, a state level competency-based curriculum manual was developed for the training of teacher associates, or more commonly titled, teacher assistants. Overton (1980:3) notes the growing influence of this kind of instructional approach:

> The choice of the competency-based approach for curriculum development by the Department of Community Colleges makes the Department a part of the general

> movement to competency-based education in North Carolina.

Thus, the manual was intended for use throughout North Carolina's community colleges. Similarly, Overton and others (1980:2) emphasize the broad input base used to facilitate development of the model:

> The curriculum model is based on the competencies identified and recommendations of the curriculum committee. This model accounts for the basic competencies needed to be successful as a teacher aide in the North Carolina school system.

Through the use of the committee approach, Overton and associates did create a teacher associate training curriculum capable of serving needs across the state.

Competency-based learning techniques were also utilized at Muskegon Community College. Ruppert (1983:3) indicates the use of discussion groups in psychology classes can be risky for several reasons: 1) a vocal few tend to dominate; 2) the groups often can degenerate into an exchange of ignorance; and 3) unprepared teachers use such groups to kill time. However, Ruppert (1983:3) believes that "smaller discussion groups can be structured to control those risks through the use of a competency-based format." Throughout the remainder of his article, Ruppert details the performance objectives, the actual group discussion techniques, and the criteria by both students and instructor to evaluate the entire process.

A manual for the purpose of introducing competency-based procedures to faculty members at Guilford Technical Community College in North Carolina was developed. While it is impossible to detail the many features of the manual, some of the especially noteworthy ones will be highlighted.

In particular, Herrscher (1984a:2) opens the manual with a clear statement of purpose: "This manual provides an overview of Competency-Based Education (CBE) and its implementation as an important component of curriculum development (design and delivery) at GTCC." Once the purpose is stated, instructor competencies are provided indicating what each instructor should be able to do upon completion of the manual and the process it entails (Herrscher, 1984a:2). Herrscher (1984a:4-20) then carefully defines the framework of competency-based education and discusses two methods of how competencies at certain levels, (unit, course, and program levels) are to be developed. One other major section of the manual involves the course development process including topics such a "Course Outline Format," "Writing Competencies," "Sample Action Verbs," and "Criterion-Referenced Testing" (Herrscher, 1984a:21-34). The last section of the manual contains an Appendices with many illustrative forms, samples, and guidelines (Herrscher, 1984a:35-68).

It appeared that Oklahoma City Community College had a system-wide, competency-based curriculum. A learning

packet was secured for "American History Since the Civil War" (Gray, 1986) and for "Psychology in Practice" (Anglin and others, 1986). An indication of the system-wide scope of the outcomes-based approach can be inferred from this passage which appears near the beginning of each packet:

> The education system at Oklahoma City Community College uses a system of instruction designed with specific goals and objectives for each course. These objectives are statements of what you should learn from the course and what is important to know about each section of the course. The objectives for each of the sections are included at the beginning of that part of this packet (Anglin et al., 1986:1).

A careful examination of Anglin's (1986) and Gray's (1986) respective packets was conducted. The general format of learning "modules" contained within the packets was very similar for both courses and was sequenced in this manner: 1) rationale; 2) objectives (Anglin divides these into behavioral and applied); 3) learning activities; and 4) assessment. Also, references to relevant audio-visual learning materials were included within each module.

A final application of competency-based programming is noted by Singer (1987) at Brevard Community College in Florida. Singer describes how competency-based materials are used to conduct an Adult Basic Education program for those adults working toward a high school diploma. Early in the article, Singer (1987:4) provides an overview of the "Student Progression Plan" which includes the following steps:

1. Program Placement
2. Diagnostic/Prescriptive Placement

3. Record Keeping
4. Student Learning Guides
5. Pre-testing
6. Student Activities
7. Self-Check
8. Post-testing
9. Enrichment Activities
10. Final Exam
11. Competency Mastery Chart

Many of the outcomes-based learning steps highlighted earlier in this review are found in Singer's listing. Of special importance are titles dealing with "Program Placement," "Student Learning Guides," "Pre-testing," "Self-Check," "Post-testing," "Enrichment Activities," and the "Final Exam." Singer (1987:28-75) concludes the document with examples of course materials which demonstrate how the competency-based framework conveys the Adult Basic Education content material to learners.

Several key areas have been examined in this literature review. In the early portion of the review, seven guiding principles of outcome-based educational systems were noted. Following these, three categories of rationale supportive of competency-based systems were defined. The rationale included these groupings: 1) general reasons why outcomes-based learning systems have worked and are working; 2) connections showing how the institutional outcomes assessment movement related to instructional systems developed with a competency-based framework; and 3) statistical studies supportive of competency-based education.

A third area examined in the review was that of outcomes learning models and systems including one by Bloom (1971) and two by Herrscher (1970) and (1984). A number of features were common to all three models: 1) analysis of the learners; 2) statement of expected learning outcomes; 3) delivery of the instructional materials; 4) application of formative evaluation processes; 5) provision for corrective measures; and 6) application of summative evaluation techniques. In his more recent framework, Herrscher (1984) added a seventh step, to certify student competencies.

In the final segment of this literature review, institutions which had varying degrees of competency-based instructional activity were noted. In some cases, competency-based delivery appeared to be used system-wide. In other cases, such instructional systems were employed in only a few classes. Although competency-based systems were utilized in both liberal-arts transfer as well as vocational-technical programs, there did appear to be a higher concentration of competency-based systems being used in technical and vocational programs.

Chapter 3

METHODOLOGY AND PROCEDURES

This study primarily involved the methodology needed to develop a written guide designed to introduce outcomes-based learning systems. It began with an extended search of literature which provided a major conceptual framework for the practicum. Sources of literature included periodicals examined as a result of an ERIC search and books secured from the Nova library and from MCC's Dean of Instruction.

In addition to the materials gleaned through the literature search, two manuals similar to the one that was composed were secured from professionals. When these documents were reviewed, careful notations were made regarding matters of form and content.

A guide designed to introduce MCC's faculty to outcomes-based learning was created (See Appendix A) and included the following sections:

1. The conceptual foundations and major principles of outcomes-based learning systems;
2. A rationale as to why such systems needed to be considered;
3. Explanations of the actual process with examples at the instructional unit level (Note: this was a refinement of procedure in that the level at

which examples were given was specified);

4. Summary comments and an evaluative device to determine understanding of concepts.

The President of MCC and the Deans of Instruction at MCC and Mid-Plains Community College in North Platte reviewed the product and suggested revisions. Once the revisions were made, the President and the Deans examined the final product and validated it (See Appendix B). The final product, the guide, was then presented to MCC's Dean of Instruction for implementation.

Definition of Terms

As used in this study, "outcomes-based learning" was considered to be synonymous with "competency-based learning," and "learning for mastery." Of the three designations, "competency-based learning" appeared in the literature with greatest frequency followed by "outcomes-based learning" and then by "mastery learning." Insofar as could be seen in the review of literature, there were no clearly defined distinctions in the events and systems described by these three sets of terms.

Assumptions

There were several assumptions made in conjunction with this practicum. First, it was assumed that there were no significant differences in the processes described by the terms "mastery learning," "competency-based learning," and "outcomes-based learning." Second, it was assumed that MCC's Dean of Instruction would pursue appropriate

implementation of the guide once it was completed. Third, it was assumed that faculty members on MCC's staff did not have a working knowledge of systems defined and described in the guide. Fourth, it was assumed that at least some of MCC's faculty would be willing to examine the systems defined and described in the guide and that possibly some might wish to examine and eventually implement a competency-based system or major part thereof. Fifth, it was assumed that presentation of outcomes-based learning processes at the instructional unit level would provide a representative sample of how such a system works in general.

Limitations

There were several limitations inherent in this practicum. First, the guide developed as a result of this practicum was intended for use at MCC and is tailored to the needs of faculty at a small, rural, two-year college. Second, the guide was intended to "introduce" faculty to outcomes-based or competency-based learning systems. It was not designed to be a comprehensive manual. Third, actual implementation of practicum recommendations regarding the guide may be limited by budget considerations, other conflicting faculty development needs, or a change of administrative staff. Another limitation was that presentation of outcomes-based processes at the instructional unit level may not provide a comprehensive enough view of the total system.

Chapter 4

RESULTS

A careful literature review was completed. When it was written, this section of the practicum was organized into four sections: 1) principles of outcomes-based learning; 2) a rationale for outcomes learning systems; 3) systems and models of outcomes-based learning; and 4) institutions using outcomes-based systems. Sections one and two of the literature review contained information used to develop the first and second sections of the guide. Information described in sections three and four of the literature review provided the conceptual framework and some examples for section three of the guide.

Other examples, concepts, and explanations of processes used in section three of the guide were derived from careful examination of two handbooks. The handbooks reviewed included one by Herrscher (1984a) and one by Allen (no date available). Summary remarks about the Herrscher handbook appeared in the literature review. However, information from the Allen handbook was used and referenced only in the actual guide developed as a result of this practicum. The "Psychology in Practice" learning packet developed by Anglin and others (1986) was also referenced in the literature review. It was then further consulted for specific examples of rationale, objectives,

pre-assessment, learning activities, and post-assessment during the development of the third section of the guide.

The fourth section of the guide contained summary comments formulated on the basis of concepts and content developed in the first three sections of the guide. A brief section listing some institutions which are presently using or have used outcomes-based learning systems was also included. This information was derived from the last section of the literature review. A short evaluative device designed to reinforce concepts presented throughout the guide was also developed and included in section four.

As a result of the aforementioned efforts, a guide entitled "An Introduction to Outcomes-Based Instruction at McCook Community College" was created. The guide contained four sections which were as follows: 1) major principles and sources; 2) outcomes-based education: a rationale; 3) outcomes-based educational systems: a model of the process and samples of component parts; and 4) summary comments and evaluation.

When a working copy of the guide became available, it was presented to the Dean of Instruction at MCC and the Vice President of Academic Affairs at Mid-Plains Community College in North Platte for suggestions and revisions. (Note: the V. P. of Academic Affairs - formerly Dean of Instruction - is a title change since the Practicum Proposal was written.) Also, a copy of the guide was given to the President of MCC for suggestions. Suggestions and

revisions made by these administrators included the following comments:

1. Delete phrase "type of" on page four.
2. Provide examples of "other methodologies" on page four. Examples: computer simulation, interactive video, library research, and so on.
3. On page five, explain clearly what summative evaluation really is.
4. On page six, note that instruction can be readily individualized.
5. Page seven - competency-based can be individualized, but it can be group-paced also. Be careful to allow for some exceptions.
6. Page ten - delete "the most" before the words "clear and direct."
7. On page ten, change the wording as indicated after the model.
8. On page ten, "rationale" should answer the question "Why bother?"
9. On page fifteen, it should also be noted that each teacher has his or her own ways of teaching effectively and competency-based systems will allow for these differences.
10. On page seventeen, clarify what the post-assessment methodology might be.
11. The document needs page numbers. You refer to page ten, but I see no page ten.

12. Citations need to be tightened up. Include page numbers in some workable manner.

13. On the first page of "Summary Comments and Evaluation," item number seven, change the sentence to read a summative (final) evaluation will be given.

14. On page ten, insert the word be between "probably" and "helpful."

As many of these revisions as possible were incorporated into the guide. Once the revisions were completed, MCC's Dean of Instruction, the President of MCC, and the Vice President of Academic Affairs at Mid-Plains Community College validated the guide (See Appendix B). The final product was presented to MCC's Dean of Instruction for implementation.

Chapter 5

DISCUSSION, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Discussion

The results of the practicum were related to the purpose which was to develop a guide to introduce MCC faculty to the framework of outcomes-based learning. For this practicum, the literature review was of primary importance. This was the case because the type of content to be included in the guide was largely determined through a careful review of relevant periodicals and the manuals written by Herrscher (1984a) and by Allen (no date available). A review of these materials did provide a working knowledge of the kind of content to be included in the guide. It is to be noted, however, that any conclusions, implications, and recommendations derived from the results and discussion of the results must be tempered by the assumptions and limitations cited earlier in this document.

The literature review proved valuable in several ways. First, a clarification of terminology was accomplished through the literature review. As noted earlier in the definitions section, it appeared that "outcomes-based learning," "competency-based learning," and "learning for mastery" were, for the most part, synonymous. This

clarification was necessary for meaningful and clear exposition to occur regarding systems learning concepts.

In reviewing the literature, it became apparent early on that principles of outcomes-based learning systems were an important area for consideration. Seven principles, then, were derived from a careful reading of two works by Bloom and others (1971, 1981). The seven principles were noted in the literature review with the idea that they might later be included in the guide.

Another area included in review of literature was that of a rationale for outcomes-based learning systems. While rationale came from a variety of different sources, it appeared to be important in developing a theoretical basis for outcomes-based learning systems. A cluster of seven general reasons developed by Singer (1986) form the first segment of the rationale section. The recent emphasis on assessing institutional outcomes formed a second area of rationale. A third area of rationale came from a number of statistical studies performed by Bloom and cited by Gagne (1988). Again, rationale was carefully detailed in the literature review so that portions of the material might be used in the outcomes-based education guide.

Models and explanations of outcomes-based models appeared in a number of books and periodicals consulted during the literature review. These models were helpful in providing a visual representation of the relationships represented and implied in the principles. After careful

examination of several models, Bloom's (1971) and Herrscher's (1970) were included in the literature review and a brief explanation of each was provided. Efforts were made to select one model which was reasonably clear so that it might be included in the guide if inclusion seemed appropriate.

Institutions using outcomes-based learning systems were noted in the fourth segment of the literature review. Discussion in this portion of the review centered on how post-secondary institutions had actually utilized outcomes-based systems in their instructional programs. A brief description of Herrscher's (1984) guide to introduce faculty members to competency-based educational systems was included in this section. Also, Gray's (1986) and Anglin's (1986) learning packets were referenced in this section. This fourth section of the literature review was needed to demonstrate how theory had been placed into practice, and it seemed likely that such information would find its way into the guide.

The literature review thus contained the framework essential to the creation of the guide. However, the manual by Herrscher (1984), the learning packet by Anglin et al. (1986), and the manual by Allen (no date) proved to be valuable sources of additional detailed information needed to complete the third section of the guide. Thus, through the use of information described up to this point, a guide was created. Sections one and two were largely

derived from material contained in the review of literature. Section three was developed in part from the literature review but also from additional materials gleaned from Anglin's (1986), Herrscher's (1984a), and Allen's (no date) manuals. Section four of the guide was written as a general summary with an evaluation mechanism included.

After a working copy of the guide was created, three administrators (President of MCC, Dean of Instruction-MCC, and Vice President of Academic Affairs at Mid-Plains Community College) reviewed it and offered suggestions for improvement. Many of the suggestions offered by the reviewers clarified connections and relationships between components found in outcomes-based learning systems.

Conclusions

The research question in this practicum concerned what kinds of content needed to be included in a guide designed to introduce faculty to outcomes-based educational systems. In framing an answer to this question (and also assembling the data needed to compose the actual guide), the following conclusions were drawn from the review of literature and examination of other relevant materials: 1) a clarification of terminology (outcomes-based, competency-based and so on) was needed early in the guide; 2) the first major section of the guide needed to define foundational principles common to outcomes-based learning systems; 3) the second section of the guide needed to establish a rationale as

to why outcomes-based educational systems were worthy of consideration; 4) the third section of the guide needed to spotlight at least one clear model, and indicate how the model was actually being carried out in practice; and 5) summary remarks and an evaluation device needed to develop to bring closure to the guide.

In the process of composing the guide, few problems were encountered in the development of parts one and two. However, it became clear that part three, a part which was to demonstrate how theory was carried into practice, would need detailed and very specific examples. Such examples were not entirely available in sections three and four of the literature review. Therefore, it was concluded that additional materials needed to be gleaned from Herrscher's (1984), Anglin's et al. (1986), and Allen's (no date) materials. This process was accomplished.

After the guide was created, it was reviewed by the appropriate administrators for suggested revisions. Since the revisions were very reasonable and helpful, they were incorporated into the final guide.

Implications

A number of implications became apparent upon careful consideration of the conclusions. First, the interchangeable nature of the terms "competency-based learning," "outcomes-based learning," and "mastery-learning" needed to be highlighted in any future presentations to faculty.

A second implication was that faculty who were largely unfamiliar with competency-based educational systems would need to have at least some understanding of the systems. Helping faculty understand these principles would, in a sense, establish the foundation for the remainder of the material to be presented in the guide.

Once the seven principles were established, the next probable step would be to examine rationale in support of a learning systems approach. Questions regarding the basic value of knowing about outcomes-based learning systems would have to be addressed early on. Hence, section two of the guide was dedicated to establishing three areas of supportive rationale.

Once the rationale was explained and emphasized to the faculty, the next important segment to introduce would be the model and an explanation of how that model has been implemented in actual practice. In particular, examples would be especially meaningful if they were given at the instructional unit (lesson) level, the level at which most faculty operate on a day-to-day basis.

In order to bring closure to the guide and the learning experiences provided therein, a summary of sections one, two, and three was created. Also, a short test device to reinforce concepts offered in the guide appeared to be one kind of summative evaluation technique. The final test question, "Write a one paragraph evaluation

of this guide," would certainly draw responses that would have implications as to the relative success of the guide.

Recommendations

The following recommendations were made as a direct result of this practicum:

1. After the President of MCC and the Dean of Instruction review the entire practicum and the guide, it is recommended that they determine the best time and occasion to use the outcomes-based guide for purposes of faculty development.
2. When such a faculty development experience occurs, it is further recommended that:
    a. the terminology confusion surrounding outcomes-based learning, competency-based learning, and mastery-learning be clarified;
    b. the seven principles common to outcomes-based learning systems be clearly and carefully presented, with time allowed for discussion and clarification;
    c. the three areas of rationale be presented and explained, again allowing time for discussion;
    d. the model, an explanation of the model, and the model as it is implemented in actual practice be methodically covered

with adequate time being provided for discussion, clarification, and questions; and

e. the summary and evaluation device be utilized.

3. It is further recommended that any constructive comments made by faculty in response to the final test statement (Write a one paragraph evaluation of this guide.) be incorporated into the guide.

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APPENDIX A

GUIDE

AN INTRODUCTION TO OUTCOMES-BASED INSTRUCTION

at

McCook Community College

by

Ford M. Craig

PURPOSE OF THIS GUIDE

This guide contains an overview of Outcomes-Based Education (OBE) which is also sometimes referred to as Competency-Based Education (CBE). It is intended to provide useful information in four related areas:

1. general principles of the OBE system,
2. rationale regarding the usefulness of OBE,
3. explanation of the process with examples at the instructional "unit" level,
4. summary comments and an evaluative device to determine understanding of concepts.

INSTRUCTOR COMPETENCIES

Upon the completion of this guide, an instructor will be able to:

1. list several major principles of outcomes-based education,
2. explain, either orally or in writing, some of the major reasons why OBE is worthy of consideration as an instructional system,
3. describe, either orally or in writing, the components common to most OBE systems,
4. write a unit-level competency in observable, outcome-oriented terms, and
5. write a one paragraph evaluation of this guide.

MAJOR PRINCIPLES AND SOURCES

The principles of outcomes learning, sometimes referred to as "competency-based learning" or "learning for mastery" were established and organized by Bloom, Hastings, and Madaus. Their work on the subject appears in two separate texts, one published in 1971 and the other in 1981.

While the books of Bloom and his associates are lengthy and technical, they do establish some foundational principles early on. Briefly summarized, they are as follows:

1. Educational processes ought not to restrict or limit students.

   In their more recent book (1981:2), these authors comment that "education throughout the world for many centuries emphasized a selective function." By selective function, they mean that too often education has been used to select those who move ahead and those who are held back.

   In contrast to the selective function view is the view that education has as its major function the development of the individual. Education viewed this way would be a process that changes learners but does not restrict or limit them.

2. The kind and quality of instruction should be appropriate to the needs of the learner.

Not all people learn the same way. Some learn very well from the lecture method; others gain the most simply by reading a text. Seminar circle instruction/discussion may be appropriate for still other kinds of learners.

3. The amount of time available for learning ought to vary according to the needs of the learners.

Not all people learn at the same rate. Information, processes, facts, concepts - all of these - sink in at varying rates:

> If the students are normally distributed with regard to aptitude, but the **kind and quality of instruction and the amount of time available for learning** are made appropriate to the characteristics and needs of each student, the majority of students may be expected to achieve mastery of the subject (Bloom, 1981:53).

4. The instructor needs to make explicit his or her goals at the beginning of the instructional process. Goals are to be clear to both instructor and student.

Why are goals so important? Well, how will anything be accomplished (educational or otherwise) if some conscious, clearly stated goals are not established? Bloom and associates (1971:10-11) believe that goals need to be established at the **unit, course, program, and institutional levels.** Thus, "ends" or "outcomes" are statements of "the

ways in which students would be able to think, act, or feel about the subject matter" (Bloom, 1971:14).

5. The use of formative evaluation is a very important part of the instructional process.

"Formative evaluation" is evaluation which occurs during the **formation** of learning (Bloom, 1981:14). This type of evaluation could be a "self test" mechanism whereby students determine if they have acquired relevant concepts, attitudes, or skills. Formative evaluation could take the form of a "check" by an instructor. In the case of a composition class, the instructor might review the first draft of an essay to determine if the basic framework and content of the paper is appropriate. However it is accomplished, formative evaluation is a vital part of the learning process.

6. When needed, recycling or corrective measures are to be employed with the student.

If the formative evaluation indicates the student still needs to learn certain concepts, skills, or attitudes, recycling needs to occur. Basically, recycling involves the use of **corrective measures** to eliminate learning deficiencies. It may be at this point that other methodologies such as computer simulation, interactive video, or library research are used to teach the same material with the same objectives.

7. <u>When appropriate, a summative (final) evaluation can be given</u>.

Bloom and associates (1981:62) suggest that a final, summative evaluation may occur, the form of which depends upon the nature of the learning to take place. In the case of an English composition class, an in-class essay would be one type of summative evaluation exercise. In a welding class, the actual process of making a strong weld between two pieces of steel could serve as a summative assessment. Whatever the situation, the summative evaluation is given to the student by the instructor to determine the student's achievement of the unit objectives. Results of the assessment are used to determine the student's readiness for new units of learning.

OUTCOMES-BASED EDUCATION: A RATIONALE

Having reviewed some of the foundational principles of outcomes-based learning systems, it now is important to establish why some individual instructors, or some instructors within a division of the college might wish to make use of competency-based educational methodology. Put another way - why should such an instructional system be given consideration?

Support for outcomes-based educational systems can be classified under at least three headings.

1. <u>There are several general reasons why outcomes-based learning systems have worked and are working</u>.

   In an article about a competency-based adult education program at Brevard Community College in Cocoa, Florida, Elizabeth Singer (1986:4-9) provides several reasons which indicate the value of the approach:

   a. The learning objectives are stated "up front, with measurement criteria fully explained."
   b. Instruction can be readily individualized and better tailored to meet student needs.
   c. Tests are criterion-referenced rather than norm-referenced. Note: **A criterion-referenced test measures whether or not a**

student has mastered a competency. The test does not give an indication of student standing relative to a group (norm referenced). Scores are frequently reported in terms of mastery (pass) or non-mastery (fail).

d. It can be designed so that each learner works at his or her own pace.

e. Learning modules can be established so that students can begin instruction when it suits them; hence, they do not have to wait until the beginning of the next class cycle.

f. Learning activities can often be assigned to meet individual student's learning styles.

g. Outcomes-based learning systems are more likely to teach students lifelong learning skills.

2. The recent emphasis on assessing institutional outcomes provides another area of support (rationale) for outcomes-based learning systems.

"Outcomes," "accountability," "institutional effectiveness," are all key words which appear in much contemporary literature having to do with two-year post-secondary institutions. Peter MacDougall and Jack Friedlander (1990:4) comment on this

special emphasis of recent years:

> In a growing number of states, community colleges are required to develop plans to assess student achievement in such areas as basic skills and remediation, general education, acquisition of knowledge in the major field, personal development, job placement, and transfer to four year colleges and universities. In addition colleges are being asked to describe how the results of these assessments are being used to improve their effectiveness in promoting student achievement of desired outcomes.

What these writers suggest is that an institution which develops a plan to assess outcomes will need to examine a **broad** range of areas including but not limited to: 1) support services such as learning resources ; 2) administrative support such as that provided by student personnel administrators; and 3) instructional staff and educational programming. In essence, assessing institutional outcomes can be viewed as the **whole** of which outcomes-based learning can be viewed as a significant **part**. Therefore, if competency-based or outcomes-based learning systems are already in place, at least one portion of institutional outcomes, <u>educational programming</u>, would be in place.

3. <u>Recent studies examining questions of how people learn most effectively also form a basis of support for outcomes based learning systems</u>.

Gagne and associates (1988:284) cite recent research on effective methods of instructional delivery. Of particular importance is the fact

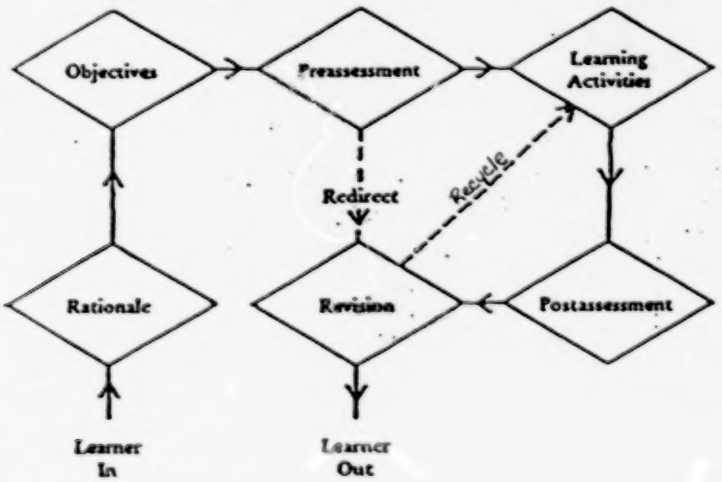
that these findings were derived from a series of studies and that statistical methods were employed to validate the conclusions:

> As compared with conventional instruction groups of 30 students per teacher, the use of **mastery learning procedures** resulted in improvements in achievement amounting to a rise from the **50th percentile to the 84th percentile**. (This is an increase of one standard deviation, or 1 sigma, as Bloom describes it). **When tutoring** was employed as a method, the increase in achievement was from the **50th to the 98th percentile, or 2 sigma**.

The findings of these studies do have serious implications for anyone interested in helping students learn. Mastery learning procedures that have resulted in improvements in achievement **such as** those listed above (one standard deviation) ought to be worthy of thoughtful consideration.

OUTCOMES-BASED EDUCATIONAL SYSTEMS: A MODEL OF THE PROCESS AND SAMPLES OF COMPONENT PARTS

There are several models of outcomes-based education available. Of the various models examined, one by Bart Herrscher (1970:3) was found to be a clear and direct schematic of a competency-based system.



In reviewing and thinking about this model, it will probably be helpful to consider what happens or what possibilities exist with each of the components represented by diamond-shaped configurations. **For the purposes of this introductory guide, the steps of this model will be traced at the level of an instructional "unit."** A "unit" as used in this analysis will be a module or sub-section of a class or course.

1. Rationale

A statement of rationale should answer the

question, "Why bother to learn this material?" When an instructor designs a course, that instructor should insure that the knowledge and skills the students acquire will be useful to them whether it be later in the course, in another course, on the job, or five years later. The rationale should relate the content of a specific course to the interests and needs of the student, and also, it should justify the time the student will spend learning the outcomes described by the objectives (Allen, p.8). Anglin (1986:5) and associates provide the following rationale for the first unit of a "Psychology in Practice" class at Oklahoma City Community College:

> Everyone is a psychologist in his or her everyday life. By contrast the professional psychologist has studied and perhaps contributed to the body of theories and observations and insights developed from over one hundred years of the scientific study of psychology. A number of principles are now available for all of us to apply in our everyday lives.
>
> In this module we will examine the differences between "public" and "scientific" psychology. We will discuss three major theoretical perspectives and their contributions to our understanding of human behavior. Finally, we begin our study of psychology principles and how to apply them with an assessment of study problems and how to effectively solve them.

2. Objectives (See model on page 10.)

Before viewing some examples of objectives relevant to the unit level of activity, it should be noted that objectives at the unit level must

be written with an eye toward a particular course competency or outcome that has been pre-established and deemed important. In turn, that course competency statement was written with an eye toward a pre-established program level competency. The program level competency was developed in response to an area of learning identified in the institution's role and mission statement.

In the case of the "Psychology in Practice" class, perhaps a course level outcome would be for the student to describe the difference between "public" and "scientific" psychology. With this outcome in mind, Anglin (1986:5) and associates list these as being the appropriate objectives at the unit level:

> a. Name and discuss the 'two psychologies' (pp. 4,5).
> b. Name and describe the three major perspectives on human behavior: psychodynamic, humanistic and behavioral (p. 6).
> . . . . . .
> c. Discuss the advantages and disadvantages of Do-It-Yourself Psychology (pp. 11, 12, 14, 15).

For objectives to be effective, Herrscher (1984a:26) indicates they should possess at least the three characteristics which follow:

> 1. They should contain (some writers say, "Begin with") an action verb that represents observable, measurable behavior. (Review the examples above).

2. They should be clear.

3. They will signal psychomotor, cognitive, and/or affective learning.

3. Pre-assessment (See model on page 10.)

As a matter of tradition, it is often assumed that every student enters a given course with the same amount of knowledge about or proficiency in the things taught in a class. Both teaching experience and research findings suggest that this assumption is frequently incorrect. One way to improve upon the situation is to use some form of pre-assessment device.

Outcomes-based systems often contain such devices which serve the purpose of 1) determining whether the student has the necessary entry level knowledge; 2) providing information about where a student who has the prerequisite knowledge or skills should begin; and 3) determining whether or not a student can already demonstrate mastery of the required or sought-after learning.

To return to the "Psychology in Practice" class, the following are examples of relevant pre-assessment measures at the unit level:

PRETEST

1. How does systematic observation differ from everyday observation?
2. Discuss 'empirical generalization.' How do these principles link everyday or public psychology and scientific psychology?

. . . . . .

3. Discuss how to distinguish normal from more

> serious problems for which professional help should be sought (Anglin, 1986:6).

How well or poorly the student performs on elements of the pretest will determine the next sequential step in the Herrscher model, (See model on page 10). For example, if the student does not have the needed entry level knowledge, he or she will need to be re-directed to learning activities which will eliminate the deficiency. Once the deficiency is alleviated, the student moves back to the original learning materials. If the student has the prerequisite knowledge as indicated by responses to the pretest questions, he/she can move into the original learning activities and materials. Finally, if the student demonstrates mastery of the required learning at the pre-assessment stage, he/she will be redirected to the next unit or module in the course sequence.

4. Learning Activities (See model on page 10.)

In outcomes-based systems, instruction at the unit level will have one set of objectives, but often will have more than one set of learning activities available to students. Hence, learning activities are organized in a variety of formats so that a student can select how learning materials are to be presented. The student will hopefully select the instructional delivery system which best fits him or her.

For the "Psychology in Practice" unit, Anglin (1986:5) lists the following learning activities:

1. Read Chapter 1.
2. Participate in class discussion of identifying problems.

An examination of the other units contained in the Psychology 1013 class reveals a similar pattern of assignments with reading followed by class discussions. However, it is not difficult to understand that a student could achieve **the same set of unit objectives** through the use of video, group discussion methods, a programmed instructional delivery system or through a traditional lecture system. **The key concept is that different people learn in different ways and outcomes-based learning systems provide for this learning diversity through the use of alternate instructional methodologies.** It also can be seen that outcomes-based systems permit instructional staff to choose **the teaching style which works best for them and for the course materials.**

When the student has completed the learning activities, he/she needs to complete a self-assessment exercise (formative evaluation) to determine the extent of learning that has occurred. For the "Psychology in Practice" unit the self-assessment questions take this form:

1. List the two psychologies and what their

major differences are.
2. List the three major perspectives on human behavior and explain how each relates to the two psychologies.
3. Name several advantages of do-it-yourself psychology. Name two disadvantages.

By completing self-assessment before proceeding to the next learning activity, the student can determine whether he/she needs to recycle through an already completed activity or whether he/she is ready to take the post-assessment test (summative evaluation). The end-of-unit self-assessment permits the student to measure his learning progress by comparing the outcomes between pre-assessment and self-assessment.

5. Post-assessment (See model on page 10.)

Having completed the learning activities and self-assessment, the student now is ready to take the post-assessment, sometimes termed the "summative evaluation" because it is given to the student by the instructor to determine the student's achievement of unit objectives.

If the student demonstrates mastery of the objectives, he/she can then move on to the next unit or module. Of course, one important task to be accomplished by the instructor is to define just exactly what mastery is for the objectives of a given unit.

Educators familiar with outcomes-based systems very often use criterion-referenced testing methods

to define student mastery or non-mastery. For the purposes of this introductory handbook, a brief explanation of criterion-referenced testing will be provided. Herrscher (1984a:32) provides a fairly clear definition:

> A criterion-referenced test (CRT) measures whether or not (or the degree to which) an individual has mastered a competency. The score on an instrument indicates what the student can or cannot do, not his/her relative status in a group. The term "criterion-referenced refers to a stated criterion (a) or standard (s) against which the student will be judged to determine whether mastery of the competency has occurred. Scores may be reported in terms of mastery or non-mastery (pass-fail) or scores may be based on the level or competence achieved as indicated on a pre-established scale.

To return to the "Psychology in Practice" unit, a statement of mastery would read like this: "To receive a mark of mastery "P" (pass) on the unit, the student must earn at least a 70 percent grade on the unit essay exam written about the disadvantages of do-it-yourself psychology." Thus, the student is not evaluated relative to others in the class, but is rated against a pre-established criterion.

One other note is of special importance with regard to criterion-referenced testing. Herrscher (1984a:32) makes this clear when he says:

> The purpose of any CRT, whether is a paper/pencil exam, a performance test, a project, etc. is to determine to what extent the student has attained a course or unit competency. Therefore, it is imperative that the test measure those competencies and nothing else.

6. Revision (See model on page 10.)

The last diamond shape on the model of the competency-based system being examined is one labeled "Revision." At this point, if the student has demonstrated mastery at the specified level as discussed in the post-assessment section, he or she follows the "Learner Out" pathway and moves to the next learning unit.

If the student does not complete the criterion or criteria at the level specified, revision of the learning process will take place, and the student does not exit the system (model). He/she can recycle through the **same materials or through a set of alternate materials**. (See step 4 for discussion of alternate materials.) Whether the student selects the same materials or alternate learning materials, the original objectives guiding the learning process are the same ones for both sets of learning materials. However, the student will be required to take an alternate version of the post-assessment test (summative evaluation.)

One other type of revision can and often does occur at this final point - **revision of the learning system itself**. In Herrscher's writing (1984a:34), he indicates that if there are shortcomings and omissions in any of the various

components of the system (represented by the model on page 10), it is at this junction where they are most likely to be detected and corrected. Needed changes are thus made to improve student achievement as defined by successful outcomes.

SUMMARY COMMENTS AND EVALUATION

A number of topics related to outcomes-based education systems have been reviewed. Seven major principles common to most outcomes-based instructional systems have been highlighted. Once again they are as follows:

1. Educational processes ought not to restrict or limit students.
2. The kind and quality of instruction should be appropriate to the needs of the learner.
3. The amount of time available for learning ought to vary according to the needs of the learners.
4. The instructor needs to make explicit his or her goals at the beginning of the instructional process. Goals are to be clear to both instructor and student.
5. The use of formative evaluation is a very important part of the instructional process.
6. When needed, recycling or corrective measures are to be employed with the student.
7. When appropriate, a summative (final) evaluation will be given.

In addition, a three part rationale has been provided regarding why outcomes-based learning systems deserve to be considered. In brief, the rationale has these parts:

1. Several general reasons exist which support

outcomes-based learning systems: objectives are stated up front; instruction is better tailored to meet student needs; criterion-referenced grading is used; learners work at their own pace; students begin instruction when it suits them; and outcomes-based learning systems are more likely to teach students lifelong learning skills.

2. The recent emphasis on assessing institutional outcomes provides another area of support for outcomes-based learning systems.
3. Recent studies examining questions of how people learn most effectively also form a basis of support for outcomes-based learning systems.

Herrscher's model and an explanation of its various parts formed the third section of this guide. According to this model, the major steps of an outcomes-based instructional system are these:

1. Rationale,
2. Objectives,
3. Pre-assessment,
4. Learning Activities,
5. Post-assessment, and
6. Revision.

A review of periodical literature was completed to develop a conceptual foundation for this manual. In the discussion of the Herrscher model, examples were drawn from Oklahoma City Community College and from Guilford Technical

Community college in Jamestown, North Carolina. Other community colleges referenced in the literature as having outcomes-based instructional systems were noted. They included the following:

1. Community College of Vermont,
2. North Carolina (state-level program for training of teacher associates - to be used in state's community colleges),
3. Muskegon Community College, Michigan and
4. Brevard Community College, Florida.

TEST TIME

Several principles of outcomes-based education were outlined in this guide. List four.

1. _____

2. _____

3. _____

4. _____

Explain why outcomes-based systems deserve consideration as to their worth. Also, which point of rationale seems most convincing.

List the major components found in many outcomes-based systems and comment on whether or not the components make good educational sense.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Write a unit level competency in observable, outcome-

oriented terms for your instructional area.

_____

_____

_____

Write a one paragraph evaluation of this guide.

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APPENDIX B

VALIDATION LETTERS

McCook Community College

Dr. Ron Newell
30925 Teho Street
Sorrento, FL 32776

Dear Dr. Newell:

This letter is a review of the practicum work by Mr. Ford Craig regarding the development of an outcomes-based curriculum guide for McCook Community College faculty. Having worked for fourteen years at a community college which used a competency-based approach exclusively, I feel that Ford has completed an extremely credible guide for the development of outcomes-based curriculum. His work is based on a very strong theoretical foundation as well as a review of practical applications of this system.

I was able to review the initial drafts of his paper and suggestions and concerns that I shared with him have been addressed in his final copy. From the perspective of a chief academic officer, I feel that this is an excellent example of a practical approach to competency-based curriculum design, and I plan to use this guide as a starting point with the faculty here at McCook to enter into the development of a outcomes-based pilot project with our faculty.

Sincerely,

Dr. Galyn Carlile
Dean of Instruction
McCook Community College

1205 EAST THIRD STREET • McCOOK, NEBRASKA 69001 • PHONE 308/345-6303

Mid-Plains Community College
North Platte, Nebraska 69101

October 29, 1990

TO WHOM IT MAY CONCERN:

This letter is to document that I have read and critiqued Ford M. Craig's paper/guide, "An Introduction to Outcomes Based Instruction at McCook Community College."

The paper provides a clear and readable introduction to Outcomes-Based Education. The discussion of the principles of OBE gives a foundation for understanding the concept. The rationale for its utilization in instruction is a convincing one both for individual instructors and at the institutional level. The summary presentation of the Herscher model, with application examples from other community colleges, is especially valuable to the instructor considering implementation of an OBE approach in his/her courses. The summary and test review consolidate the concepts for the reader and the references provide a starting point for the reader who may choose to engage in more in-depth study of OBE/competency-based instruction and learning.

I commend Ford on this effort in the belief that it reflects both an understanding of OBE on his part as well as an ability to transmit this to even the casual reader.

Sincerely,

Burton B. Brackney

Burton B. Brackney
Vice-President
McDonald-Belton Campus

BBB:gen

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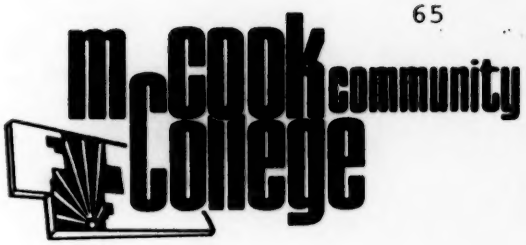

November 2, 1990

Dr. Ron Newell
30925 Teho Street
Sorrento, FL 32776

Dear Dr. Newell:

Mr. Ford Craig has asked me to review and react to his practicum work, "An Introduction to Outcomes Based Instruction at McCook Community College." Having worked with individualized instruction at a community college and with competency based instruction for the army reserve, I am happy to see Mr. Craig and Dr. Carlile working to share the concept of competency based instruction with our faculty.

Ford has constructed a guide which captures the essence of competency based instruction in a format which should be usable as we promote the use of competency based instruction at our College. Advocating a new instructional mode at MCC at this time will require an extra special effort. Ford has provided the rationale in his guide which is most likely to be successful advocating competency based instruction at MCC.

Sincerely,

Bob Smallfoot

Dr. Bob Smallfoot
President
McCook Community College

1205 EAST THIRD STREET • McCOOK, NEBRASKA 69001 • PHONE 308/345-6303

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END

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Date Filmed

March 29, 1991